

EXHIBIT 11

In re Flint Water Cases,
No. 16-cv-1044

Rebuttal Report of Dr. Larry L. Russell
Veolia

March 3, 2023

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7.5 Lead and Copper Rule

Dr. Kimbrough expresses the opinion that for LCR samples "...high lead results may not be indicative of how brass corrosion is affecting water quality overall at a residence or in the drinking water system" (Kimbrough 2023, p. 9). Based on Dr. Kimbrough's statements, it appears he is arguing that LCR sampling shouldn't be performed at all as it's not indicative of corrosion of and metal contamination in drinking water system.

7.6 Wastewater Biosolids

As is discussed at length in my response to Dr. Roy's report, there are critical flaws in the Roy biosolids works related to the correlation of the lead concentration in the biosolids versus the lead concentration in the drinking water, due to his misunderstanding of variety of factors impacting the concentrations of lead in the biosolids. The data presented by Dr. Kimbrough in California regarding LCR testing and sewage simply isn't useful in Flint. The Flint Water Crisis happened. The biosolids data are being twisted to argue to the contrary but that does not change the facts that this crisis occurred. As discussed elsewhere in the Roy report, the high lead levels observed in 2011 are clearly associated with the high rainfall events and not to an increase in the Flint drinking water as proposed by Roy, and highlight the failures of the Roy model to consider the role of a partially combined sewer that is present in Flint. Roy failed to properly consider the required factors in the generation, and fate and transport of heavy metals in the Flint Sewer system. Kimbrough assessments based on Roy's work are similarly flawed, and the Roy work cannot be relied upon to support Kimbrough's positions.

7.7 Comments on Russell Opinions

Dr. Kimbrough fails to present convincing evidence on his criticisms of my findings and opinions based on my years of work as a corrosion expert in well over 100 matters involving over 500,000 homes. Dr. Kimbrough is not qualified to offer expert opinions on the subject of corrosion based on his CV. As an example, Dr. Kimbrough misinterprets my statements regarding the impacts of increasing chloride, and misapplies a study from California as a basis for this position. His evaluation is inaccurate and not supported by the actual data presented. Further, Dr. Kimbrough used exterior inspection of brass fittings during the inspection at Christensen Materials to make the unsupported assessment that no brass components in Flint experienced damage. His approach is nonsensical and demonstrates his inexperience with corrosion, and lack of understanding as to what parts were removed from the Flint properties for testing.

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11 Signature

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge and recollection.

Executed this day 3rd day of March 2023, in Tiburon CA.

By: 
Larry L. Russell, Ph.D., P.E.

License Number 6201055338

Exp 4/30/2025

